

Please refer to the instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐

A. First Notification

☒

B. Subsequent Notification
(complete item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

A R C O C H E M I C A L C O M P A N Y R & D

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R P I K E

Street (continued)

City or Town

N E W T O W N S Q U A R E

State

ZIP Code

P A 1 9 0 7 3 -

County Code County Name

D E L A W A R E

IV. Installation Mailing Address (See instructions)

Street or P.O. Box

S A M E

City or Town

State

ZIP Code

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (last)

S A M M O N S

(first)

R I T A

Job Title

E N V. S U P T.

Phone Number (area code and number)

6 1 0 - 3 5 9 - 4 6 0 4

VI. Installation Contact Address (See instructions)

A. Contact Address
Location Mailing

☒ ☒

B. Street or P.O. Box

City or Town

1 0 5 5 S F L O W E R S T R E E T

State

ZIP Code

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

A R C O

Street, P.O. Box, or Route Number

1 0 5 5 S F L O W E R S T R E E T

City or Town

L O S A N G E L E S

State

ZIP Code

C A 9 0 0 7 1 -

Phone Number (area code and number)

2 1 3 - 4 8 6 - 3 5 1 1

B. Land Type

☒

C. Owner Type

☒

D. Change of Owner Indicator

Yes

No

☒

(Date Changed)

Month

Day

Year

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to instructions.)

A. Hazardous Waste Activity

1. Generator (See instructions)
- ☒ a. Greater than 1000kg/mo (2,200 lbs.)
- ☐ b. 100 to 1000 kg/mo (220 - 2,200 lbs.)
- ☐ c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
- ☐ a. For own waste only
- ☐ b. For commercial purposes
- Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ 5. Other - specify
3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.
4. Hazardous Waste Fuel
- ☐ a. Generator Marketing to Burner
- ☐ b. Other Marketer
- ☐ c. Boiler and/or Industrial Furnace
1. Smelter-Deferral
2. Small Quantity Exemption
- Indicate Type of Combustion Device(s):
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace
- ☐ 5. Underground Injection Control

B. Used Oil Fuel Activities

1. Off-Specification Used Oil Fuel
- ☐ a. Generator Marketing to Burner
- ☐ b. Other Marketer
- ☐ c. Burner - Indicate device(s) Type of Combustion Device
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace
- ☐ 2. Specification Used Oil Fuel Marketer (or On-site Burner) Who First Claims the Oil Meets the Specification

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001)
2. Corrosive (D002)
3. Reactive (D003)
4. Toxicity Characteristic (D000)

☒☒☒☒

D 0 0 4

D 0 0 5

D 0 0 6

D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
F 0 0 1	F 0 0 2	F 0 0 3	F 0 0 4	F 0 0 5	P 0 0 3
7	8	9	10	11	12
P 0 0 5	P 0 1 1	P 0 1 2	P 0 2 4	P 0 2 8	P 0 3 0

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number. See instructions.)

1	2	3	4	5	6
X 8 5 0	X 9 0 0	X 9 1 0	X 9 4 0	6 6 6 6	7 7 7 7

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: Rita Sammons Name and Official Title (type or print): RITA SAMMONS, ENV. SUPERINTENDENT Date Signed: 1/22/96

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

10 - For Official Use Only

D. Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13	14	15	16	17	18
D 0 0 8	D 0 0 9	D 0 1 0	D 0 1 1	D 0 2 2	D 0 3 6
19	20	21	22	23	24
D 0 3 9	P 0 6 9	P 1 0 4	P 1 0 6	P 1 0 8	P 1 1 3
25	26	27	28	29	30
P 1 1 9	P 1 2 0	U 0 0 1	U 0 0 6	U 0 0 7	U 0 0 8
31	32	33	34	35	36
U 0 0 9	U 0 1 2	U 0 4 1	U 0 5 2	U 0 6 8	U 0 8 0
37	38	39	40	41	42
U 1 0 1	U 1 0 2	U 1 0 3	U 1 0 8	U 1 1 2	U 1 1 3
43	44	45	46	47	48
U 1 1 7	U 1 2 1	U 1 2 2	U 1 2 3	U 1 3 4	U 1 4 4
49	50	51	52	53	54
U 1 4 7	U 1 5 1	U 1 5 2	U 1 5 6	U 1 6 0	U 1 6 2
55	56	57	58	59	60
U 1 6 5	U 1 6 9	U 1 8 8	U 1 9 0	U 2 0 9	U 2 1 3
61	62	63	64	65	66
U 2 1 4	U 2 1 6	U 2 1 7	U 2 2 1	U 2 2 3	U 2 2 8
67	68	69	70	71	72
U 2 3 8	P 0 9 8	U 1 3 3	P 0 7 7	U 1 0 6	U 2 4 6
73	74	75	76	77	78
P 0 4 8	P 0 8 7	P 1 0 5	U 0 4 4	U 0 9 6	
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102
103	104	105	106	107	108
109	110	111	112	113	114
115	116	117	118	119	120



ACKNOWLEDGEMENT OF NOTIFICATION
OF REGULATED WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Regulated Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

+ PAD046538211

01/17/97

INSTALLATION ADDRESS

ARCO CHEMICAL CO R&D
3801 WEST CHESTER PIKE
NEWTOWN SQUARE, PA 190732387
RITA SANNONS ENV SUPT

3801 WEST CHESTER PIKE
NEWTOWN SQUARE, PA 190732387

ARCO Chemical Company

3801 West Chester Pike
Newtown Square, Pennsylvania 19073-3280
Telephone 610 359 2000

Safety, Health, Environmental & Security



January 9, 1997

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3HW51)
841 Chestnut Building
Philadelphia, PA 19107

RECEIVED
PA/DC REG
JAN 14 1997
EPA REGION III

Re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD046538211

To whom it may concern:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company (ACC). The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4604.

Sincerely,

Rita M. Sammons
Environmental Superintendent

Enclosure

cc: Pennsylvania Department of Environmental Protection
Bureau of Land Recycling and Waste Management
Waste Management Program
16th Floor, Rachel Carson State Office Building
PO Box 2063
Harrisburg, PA 17105-2063

Please refer to the Instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

EPA REC

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐ A. First Notification ☒ B. Subsequent Notification
(Complete Item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

A R C O C H E M I C A L C O M P A N Y R & D

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R P I K E

Street (Continued)

City or Town

N E W T O W N S Q U A R E

State

Zip Code

P A 1 9 0 7 3 - 2 3 8 7

County Code

County Name

D E L A W A R E

IV. Installation Mailing Address (See Instructions)

Street or P.O. Box

S A M E

City or Town

State

Zip Code

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last)

(First)

S A M M C N S

R I T A

Job Title

Phone Number (Area Code and Number)

E N V S U P T

6 1 0 - 3 5 9 - 4 6 0 4

VI. Installation Contact Address (See Instructions)

A. Contact Address

B. Street or P.O. Box

☒ ☒

City or Town

State

Zip Code

VII. Ownership (See Instructions)

A. Name of Installation's Legal Owner

A R C O

Street, P.O. Box, or Route Number

1 0 5 5 S F L O W E R S T R E E T

City or Town

State

Zip Code

L O S A N G E L E S

C A 9 0 0 7 1 -

Phone Number (Area Code and Number)

B. Land Type

C. Owner Type

D. Change of Owner Indicator

(Date Changed) Month Day Year

2 1 3 - 4 8 6 - 3 5 1 1

P

P

Yes ☒ No ☐

Month Day Year

For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to Instructions)

A. Hazardous Waste Activity		B. Used Oil Recycling Activities	
1. Generator (See Instructions)	<input type="checkbox"/> 3. Treater, Storer, Disposer (at Installation) Note: A permit is required for this activity; see instructions.	1. Used Oil Fuel Markets	<input type="checkbox"/> 2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
<input checked="" type="checkbox"/> a. Greater than 1000 kg/mo (2,200 lbs.)	<input type="checkbox"/> 4. Hazardous Waste Fuel	<input type="checkbox"/> a. Marketer Direct Shipment of Used Oil to Oil Specification Burner	<input type="checkbox"/> b. Marketer Who First Claims the Use of Oil Meets the Specifications
<input type="checkbox"/> b. 100 to 1000 kg/mo (200-2,200 lbs.)	<input type="checkbox"/> a. Generator Marketing to Burner	<input type="checkbox"/> c. Utility Boiler	<input type="checkbox"/> d. Industrial Boiler
<input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.)	<input type="checkbox"/> b. Other Marketers	<input type="checkbox"/> e. Industrial Furnace	
2. Transporter (Indicate Mode in boxes 1-5 below)	<input type="checkbox"/> c. Boiler and/or Industrial Furnace	3. Used Oil Transporter - Indicate Type(s) of Activity(ies)	
<input type="checkbox"/> a. For own waste only	<input type="checkbox"/> d. Smaller Deferrals	<input type="checkbox"/> a. Transporter	
<input type="checkbox"/> b. For commercial purposes	<input type="checkbox"/> e. 2 Small Quantity Exemptions	<input type="checkbox"/> b. Transfer Facility	
Mode of Transportation	Indicate Type(s) of Combustion Device(s)	4. Used Oil Processor/Refiner - Indicate Type(s) of Activity(ies)	
<input type="checkbox"/> 1. Air	<input type="checkbox"/> 1. Utility Boiler	<input type="checkbox"/> a. Processor	
<input type="checkbox"/> 2. Rail	<input type="checkbox"/> 2. Industrial Boiler	<input type="checkbox"/> b. Refiner	
<input type="checkbox"/> 3. Highway	<input type="checkbox"/> 3. Industrial Furnace		
<input type="checkbox"/> 4. Waterway	<input type="checkbox"/> 5. Underground Injection Control		
<input type="checkbox"/> 5. Other - specify _____			

IX. Description of Hazardous Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

Corrosive (D001)	Reactive (D002)	Toxicity Characteristic (D003)	Flammable (D004)	Explosive (D005)	Other (D006)	Other (D007)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See Instructions if you need to list more than 12 waste codes.)

F 0 0 1	F 0 0 2	F 0 0 3	F 0 0 4	F 0 0 5	P 0 0 3
P 0 0 5	P 0 1 1	P 0 1 2	P 0 2 4	P 0 2 8	P 0 3 0

C. Other Wastes. (State or other wastes requiring a handler to have an LD number; See Instructions.)

X 8 5 0	X 9 0 0	X 9 1 0	X 9 4 0	6 6 6 6	7 7 7 7
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X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature <i>Charles W. Ruoff</i>	Name and Official Title (Type or print) Charles W. Ruoff, Facility Manager	Date Signed 1/10/97
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XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

For Official Use Only											

Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13 D 0 0 8	14 D 0 0 9	15 D 0 1 0	16 D 0 1 1	17 D 0 2 2	18 D 0 3 6
19 D 0 3 9	20 P 0 6 9	21 P 1 0 4	22 P 1 0 6	23 P 1 0 8	24 P 1 1 3
25 P 1 1 9	26 P 1 2 0	27 U 0 0 1	28 U 0 0 6	29 U 0 0 7	30 U 0 0 8
31 U 0 0 9	32 U 0 1 2	33 U 0 4 1	34 U 0 5 2	35 U 0 6 8	36 U 0 8 0
37 U 1 0 1	38 U 1 0 2	39 U 1 0 3	40 U 1 0 6	41 U 1 1 2	42 U 1 1 3
43 U 1 1 7	44 U 1 2 1	45 U 1 2 2	46 U 1 2 3	47 U 1 3 4	48 U 1 4 4
49 U 1 4 7	50 U 1 5 1	51 U 1 5 2	52 U 1 5 6	53 U 1 6 0	54 U 1 6 2
55 U 1 6 5	56 U 1 6 9	57 U 1 8 8	58 U 1 9 0	59 U 2 0 9	60 U 2 1 3
61 U 2 1 4	62 U 2 1 6	63 U 2 1 7	64 U 2 2 1	65 U 2 2 2	66 U 2 2 3
67 U 2 2 8	68 U 2 3 8	69 P 0 9 8	70 U 1 3 3	71 P 0 7 7	72 U 1 0 6
73 U 2 4 6	74 P 0 4 8	75 P 0 8 7	76 P 1 0 5	77 U 0 9 6	78 U 3 5 3
79 P 0 6 8	80 U 0 5 3	81 U 1 0 5	82 N 8 9 9	83 D 0 2 9	84 P 0 2 7
85 P 0 1 4	86 P 0 4 7	87 U 0 6 9	88 U 1 0 7	89 U 1 9 8	90 X 9 1 8
91 I D 7 2	92 U 4 0 4	93	94	95	96
97	98	99	100	101	102
103	104	105	106	107	108
109	110	111	112	113	114
115	116	117	118	119	120

ARCO Chemical Company

3801 West Chester Pike
Newtown Square, Pennsylvania 19073-3280
Telephone 610 359 2000



Safety, Health, Environmental & Security
January 22, 1996

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3 HW51)
841 Chestnut Building
Philadelphia, PA 19107

RECEIVED
PA/DC SECTION
JUN 20 1996
EPA REGION III

Re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD 046538211

To whom it may concern:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company (ACC). The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4604.

Sincerely,

Rita M. Sammons
Environmental Superintendent

Enclosures

bc: T.A. Bailey/B2
M.G. Griffith/EOB
T.J. Senn/D1
C.W. Ruoff/D1

RECEIVED
EPA REGION III
JUN 10 1996

790



**ACKNOWLEDGEMENT OF NOTIFICATION
OF REGULATED WASTE ACTIVITY
(VERIFICATION)**

This is to acknowledge that you have filed a Notification of Regulated Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

PAD068730225

INSTALLATION ADDRESS

**ARCO CHEMICAL CO BEAVER VALLEY PLT
400 FRANKFORT RD
MONACA, PA 15061
JANE KELLEY ENV SUPT**

**400 FRANKFORT RD
MONACA, PA 15061**



**ACKNOWLEDGEMENT OF NOTIFICATION
OF REGULATED WASTE ACTIVITY**
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Regulated Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Biennial Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

+
PAD046538211

01/24/00

INSTALLATION ADDRESS

LYONDELL CHEM CO
3801 W CHESTER PIKE
NEWTOWN SQUARE , PA 190732387
TOM BAKER ENV SUPT

3801 W CHESTER PIKE
NEWTOWN SQUARE , PA 190732387

- 1 of 2 -

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to instructions)

A. Hazardous Waste Activity

1. Generator (See instructions)
☒ a. Greater than 1000kg/mo (2,200 lbs.)
☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
☐ c. Less than 100 kg/mo (220 lbs.)

2. Transporter (Indicate Mode in boxes 1-5 below)

- ☐ a. For own waste only
☐ b. For commercial purposes

Mode of Transportation

- ☐ 1. Air
☐ 2. Rail
☐ 3. Highway
☐ 4. Water
☐ 5. Other - specify

- ☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.

4. Hazardous Waste Fuel

- ☐ a. Generator Marketing to Burner
☐ b. Other Marketers
☐ c. Boiler and/or Industrial Furnace

- ☐ 1. Smelter Refractor
☐ 2. Small Quantity Exemption
Indicate Type of Combustion Device(s)

- ☐ 1. Utility Boiler
☐ 2. Industrial Boiler
☐ 3. Industrial Furnace

- ☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

2. Used Oil Burner - Indicate Type(s) of Combustion Device

- ☐ a. Utility Boiler
☐ b. Industrial Boiler
☐ c. Industrial Furnace

3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)

- ☐ a. Transporter
☐ b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
☐ a. Process
☐ b. Re-refine

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001)



2. Corrosive (D002)



3. Reactive (D003)



4. Toxicity Characteristic



(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

D 0 0 4 D 0 0 5 D 0 0 6 D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)

1
D 0 0 8
7
D 0 2 9

2
D 0 0 9
8
D 0 3 6

3
D 0 1 0
9
D 0 3 9

4
D 0 1 1
10
F 0 0 1

5
D 0 2 1
11
F 0 0 2

6
D 0 2 2
12
F 0 0 3

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number; See instructions.)

1
N 8 9 9

2
I D 7 2

3
X 8 5 0

4
X 9 0 0

5
X 9 0 5

6
X 9 1 0

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Paul J. Consorte

Name and Official Title (Type or print)

Paul J. Consorte, Facility Manager

Date Signed

1/14/00

XI. Comments

This subsequent notification reflects the installation name change from Lyondell Chemical Worldwide Inc. to Lyondell Chemical Company effective 12/31/1999, and new waste codes since 9/7/1999 (see "**").

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

OFN: LYONDELL CHEM WORLDWIDE INC

bah/JC 1/14/00

ID - For Official Use Only

IX. Description of Regulated Wastes (Continued; Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13 F 0 0 4	14 F 0 0 5	15 F 0 2 7	16 P 0 0 3	17 P 0 0 5	18 P 0 1 1
19 P 0 1 2	20 P 0 1 4	21 P 0 2 0	22 P 0 2 4	23 P 0 2 8	24 P 0 3 0
25 P 0 4 7	26 P 0 4 8	27 P 0 6 8	28 P 0 6 9	29 P 0 7 5	30 P 0 7 6
31 P 0 7 7	32 P 0 7 8	33 P 0 8 7	34 P 0 9 8	35 P 1 0 4	36 P 1 0 5
37 P 1 0 6	38 P 1 0 8	39 P 1 1 3	40 P 1 1 9	41 P 1 2 0	42 P 1 2 1
43 P 2 0 5	44 U 0 0 1	45 U 0 0 6	46 U 0 0 7	47 U 0 0 8	48 U 0 0 9
49 U 0 1 2	50 U 0 2 9	51 U 0 4 1	52 U 0 4 4	53 U 0 5 2	54 U 0 5 3
55 U 0 6 8	56 U 0 6 9	57 U 0 8 0	58 U 0 9 2	59 U 0 9 6	60 U 1 0 1
61 U 1 0 2	62 U 1 0 3	63 U 1 0 5	64 U 1 0 6	65 U 1 0 7	66 U 1 0 8
67 U 1 1 2	68 U 1 1 3	69 U 1 1 5	70 U 1 1 7	71 U 1 2 1	72 U 1 2 2
73 U 1 2 3	74 U 1 3 3	75 U 1 3 4	76 U 1 3 8	77 U 1 4 4	78 U 1 4 7
79 U 1 5 1	80 U 1 5 2	81 U 1 5 3	82 U 1 5 6	83 U 1 5 9	84 U 1 6 0
85 U 1 6 2	86 U 1 6 5	87 U 1 6 9	88 U 1 8 8	89 U 1 9 0	90 U 2 0 4
91 U 2 0 9	92 U 2 1 3	93 U 2 1 4	94 U 2 1 6	95 U 2 1 7	96 U 2 1 9
97 U 2 2 1	98 U 2 2 2	99 U 2 2 3	100 U 2 2 8	101 U 2 3 8	102 U 2 4 6
103 U 2 7 9	104 U 3 5 3	105 U 4 0 4	106 X 9 1 8	107 X 9 4 0	108 6 6 6 6
109 7 7 7 7	+ 110 * D 0 1 9	+ 111 * D 0 3 5	+ 112 * D 0 3 8	+ 113 * P 0 2 9	+ 114 * P 0 9 3
+ 115 * U 1 9 4	116 	117 	118 	119 	120

* New Codes



3801 West Chester Pike
Newtown Square, Pennsylvania 19073-2387
Telephone: 610.359.2000

January 13, 2000

CERTIFIED MAIL

U.S. Environmental Protection Agency Region III
RCRA Programs Branch (3WC22)
1650 Arch St
Philadelphia, PA 19103-2029

**Re: Subsequent Notification of Regulated Waste Activity
Lyondell Chemical Company
EPA ID No. PAD046538211**

To Whom It May Concern.

In accordance with 40 CFR 262.12 and 25 Pa. Code 262a.12(b)(3), attached is a subsequent Notification of Regulated Waste Activity (EPA 8700-12) Form and Pennsylvania's Supplement to EPA Form 8700-12 for the hazardous waste activities at Lyondell Chemical Company's Newtown Square facility.

This subsequent notification updates waste codes typically generated by the facility (see "**") since our last subsequent notification on September 7, 1999. Also, we are changing the installation name from Lyondell Chemical Worldwide, Inc. to Lyondell Chemical Company, effective December 31, 1999. In July 1998, ARCO Chemical Company (Tax ID No. 51-0104393) was acquired by Lyondell Chemical Company, with ARCO Chemical Company becoming a wholly-owned subsidiary of Lyondell Chemical Company. As a result of this acquisition and effective January 1, 1999, the name of ARCO Chemical Company was changed to Lyondell Chemical Worldwide, Inc. (same Tax ID No. 51-0104393). Effective December 31, 1999, Lyondell Chemical Worldwide, Inc. (the former ARCO Chemical Company) was merged into Lyondell Chemical Company (Tax ID No. 95-4160558), with Lyondell Chemical Company being the surviving entity. As a result of the merger, all of the obligations and liabilities of Lyondell Chemical Worldwide, Inc., by operation of law, became direct obligations and liabilities of Lyondell Chemical Company. Because Lyondell Chemical Company leases the facility from Atlantic Richfield Company (ARCO), the legal owner should remain as ARCO.

The Newtown Square facility is a Research & Development (R&D) facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the primary source of the chemical wastes.

If you have any questions, please call me at (610) 359-4849.

Subsequent Notification of Regulated Waste Activity

PAD046538211

January 13, 2000

Page 2

Sincerely,

A handwritten signature in cursive script that reads "Thomas P. Baker".

Thomas P. Baker

Environmental Superintendent

Attachments

cc: Pennsylvania Department of Environmental Protection
Southeast Region
Waste Management Program
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428-2233

HS&E Central File

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐

A. Initial Notification

☒

B. Subsequent Notification
(Complete item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

L Y O N D E L L C H E M I C A L C O M P A N Y

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R P I K E

Street (Continued)

City or Town

N E W T O W N S Q U A R E

State

Zip Code

P A

1 9 0 7 3 - 2 3 8 7

County Code

County Name

0 4 5

D E L A W A R E

IV. Installation Mailing Address (See instructions)

Street or P.O. Box

S A M E

City or Town

State

Zip Code

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last)

(First)

B A K E R

T O M

Job Title

Phone Number (Area Code and Number)

E N V S U P T

6 1 0 - 3 5 9 - 4 8 4 9

VI. Installation Contact Address (See instructions)

A. Contact Address
Location Mailing

☒
☐

B. Street or P.O. Box

City or Town

State

Zip Code

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

A T L A N T I C R I C H F I E L D C O M P A N Y

Street, P.O. Box, or Route Number

5 1 5 S O U T H F L O W E R S T R E E T

City or Town

State

Zip Code

L O S A N G E L E S

C A

9 0 0 7 1 -

Phone Number (Area Code and Number)

B. Land Type

C. Owner Type

D. Change of Owner Indicator

(Date Changed)
Month Day Year

2 1 3 - 4 8 6 - 3 5 1 1

P

P

Yes

No

Month

Day

Year

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to Instructions)

A. Hazardous Waste Activity

1. Generator (See Instructions)
☒ a. Greater than 1000kg/mo (2,200 lbs.)
☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
☐ c. Less than 100 kg/mo (220 lbs.)
 2. Transporter (Indicate Mode in boxes 1-5 below)
☐ a. For own waste only
☐ b. For commercial purposes

Mode of Transportation

- ☐ 1. Air
☐ 2. Rail
☐ 3. Highway
☐ 4. Water
☐ 5. Other - specify

- ☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.
 4. Hazardous Waste Fuel
☐ a. Generator Marketing to Burner
☐ b. Other Marketers
☐ c. Boiler and/or Industrial Furnace
☐ 1. Smelter Deferral
☐ 2. Small Quantity Exemption
 Indicate Type of Combustion Device(s)
☐ 1. Utility Boiler
☐ 2. Industrial Boiler
☐ 3. Industrial Furnace
☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
 2. Used Oil Burner - Indicate Type(s) of Combustion Device
☐ a. Utility Boiler
☐ b. Industrial Boiler
☐ c. Industrial Furnace
 3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)
☐ a. Transporter
☐ b. Transfer Facility
 4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
☐ a. Process
☐ b. Re-refine

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001)



2. Corrosive (D002)



3. Reactive (D003)



4. Toxicity Characteristic



(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

D 0 0 4

D 0 0 5

D 0 0 6

D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)

1
D 0 0 8
7
D 0 2 9

2
D 0 0 9
8
D 0 3 6

3
D 0 1 0
9
D 0 3 9

4
D 0 1 1
10
F 0 0 1

5
D 0 2 1
11
F 0 0 2

6
D 0 2 2
12
F 0 0 3

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number; See instructions.)

1
N 8 9 9

2
I D 7 2

3
X 8 5 0

4
X 9 0 0

5
X 9 0 5

6
X 9 1 0

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Name and Official Title (Type or print)

Paul J. Consorte, Facility Manager

Date Signed

1/14/00

XI. Comments

This subsequent notification reflects the installation name change from Lyondell Chemical Worldwide Inc. to

Lyondell Chemical Company effective 12/31/1999, and new waste codes since 9/7/1999 (see "***").

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

ban/vc 1/26/00

ID - For Official Use Only

IX, Description of Regulated Wastes (Continued; (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13			
F	0	0	4
19			
P	0	1	2
25			
P	0	4	7
31			
P	0	7	7
37			
P	1	0	6
43			
P	2	0	5
49			
U	0	1	2
55			
U	0	6	8
61			
U	1	0	2
67			
U	1	1	2
73			
U	1	2	3
79			
U	1	5	1
85			
U	1	6	2
91			
U	2	0	9
97			
U	2	2	1
103			
U	2	7	9
109			
7	7	7	7
115 *			
U	1	9	4
14			
F	0	0	5
20			
P	0	1	4
26			
P	0	4	8
32			
P	0	7	8
38			
P	1	0	8
44			
U	0	0	1
50			
U	0	2	9
56			
U	0	6	9
62			
U	1	0	3
68			
U	1	1	3
74			
U	1	3	3
80			
U	1	5	2
86			
U	1	6	5
92			
U	2	1	3
98			
U	2	2	2
104			
U	3	5	3
110 *			
D	0	1	9
116			
15			
F	0	2	7
21			
P	0	2	0
27			
P	0	6	8
33			
P	0	8	7
39			
P	1	1	3
45			
U	0	0	6
51			
U	0	4	1
57			
U	0	8	0
63			
U	1	0	5
69			
U	1	1	5
75			
U	1	3	4
81			
U	1	5	3
87			
U	1	6	9
93			
U	2	1	4
99			
U	2	2	3
105			
U	4	0	4
111 *			
D	0	3	5
117			
16			
P	0	0	3
22			
P	0	2	4
28			
P	0	6	9
34			
P	0	9	8
40			
P	1	1	9
46			
U	0	0	7
52			
U	0	4	4
58			
U	0	9	2
64			
U	1	0	6
70			
U	1	1	7
76			
U	1	3	8
82			
U	1	5	6
88			
U	1	8	8
94			
U	2	1	6
100			
U	2	2	8
106			
X	9	1	8
112 *			
D	0	3	8
118			
17			
P	0	0	5
23			
P	0	2	8
29			
P	0	7	5
35			
P	1	0	4
41			
P	1	2	0
47			
U	0	0	8
53			
U	0	5	2
59			
U	0	9	6
65			
U	1	0	7
71			
U	1	2	1
77			
U	1	4	4
83			
U	1	5	9
89			
U	1	9	0
95			
U	2	1	7
101			
U	2	3	8
107			
X	9	4	0
113 *			
P	0	2	9
119			
18			
P	0	1	1
24			
P	0	3	0
30			
P	0	7	6
36			
P	1	0	5
42			
P	1	2	1
48			
U	0	0	9
54			
U	0	5	3
60			
U	1	0	1
66			
U	1	0	8
72			
U	1	2	2
78			
U	1	4	7
84			
U	1	6	0
90			
U	2	0	4
96			
U	2	1	9
102			
U	2	4	6
108			
6	6	6	6
114 *			
P	0	9	3
120			

* New Codes



3801 West Chester Pike
Newtown Square, Pennsylvania 19073-2387
Telephone: 610.359.2000

January 13, 2000

CERTIFIED MAIL

U.S. Environmental Protection Agency Region III
RCRA Programs Branch (3WC22)
1650 Arch St.
Philadelphia, PA 19103-2029

Re: **Subsequent Notification of Regulated Waste Activity**
Lyondell Chemical Company
EPA ID No. PAD046538211

To Whom It May Concern:

In accordance with 40 CFR 262.12 and 25 Pa. Code 262a.12(b)(3), attached is a subsequent Notification of Regulated Waste Activity (EPA 8700-12) Form and Pennsylvania's Supplement to EPA Form 8700-12 for the hazardous waste activities at Lyondell Chemical Company's Newtown Square facility.

This subsequent notification updates waste codes typically generated by the facility (see "*") since our last subsequent notification on September 7, 1999. Also, we are changing the installation name from Lyondell Chemical Worldwide, Inc. to Lyondell Chemical Company, effective December 31, 1999. In July 1998, ARCO Chemical Company (Tax ID No. 51-0104393) was acquired by Lyondell Chemical Company, with ARCO Chemical Company becoming a wholly-owned subsidiary of Lyondell Chemical Company. As a result of this acquisition and effective January 1, 1999, the name of ARCO Chemical Company was changed to Lyondell Chemical Worldwide, Inc. (same Tax ID No. 51-0104393). Effective December 31, 1999, Lyondell Chemical Worldwide, Inc. (the former ARCO Chemical Company) was merged into Lyondell Chemical Company (Tax ID No. 95-4160558), with Lyondell Chemical Company being the surviving entity. As a result of the merger, all of the obligations and liabilities of Lyondell Chemical Worldwide, Inc., by operation of law, became direct obligations and liabilities of Lyondell Chemical Company. Because Lyondell Chemical Company leases the facility from Atlantic Richfield Company (ARCO), the legal owner should remain as ARCO.

The Newtown Square facility is a Research & Development (R&D) facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the primary source of the chemical wastes.

If you have any questions, please call me at (610) 359-4849.

Subsequent Notification of Regulated Waste Activity

PAD046538211

January 13, 2000

Page 2

Sincerely,

A handwritten signature in cursive script that reads "Thomas P. Baker".

Thomas P. Baker

Environmental Superintendent

Attachments

cc: Pennsylvania Department of Environmental Protection
Southeast Region
Waste Management Program
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428-2233

HS&E Central File



**ACKNOWLEDGEMENT OF NOTIFICATION
OF REGULATED WASTE ACTIVITY
(VERIFICATION)**

This is to acknowledge that you have filed a Notification of Regulated Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Biennial Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

PAD046538211

10/22/99

INSTALLATION ADDRESS

LYONDELL CHEM WORLDWIDE INC
3801 W CHESTER PIKE
NEWTOWN SQUARE, PA 190732387
TOM BAKER ENV SUPT

3801 W CHESTER PIKE
NEWTOWN SQUARE, PA 190732387

Please refer to Section V. Line-by-Line Instructions for Completing EPA Form 8700-12 before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐

A. Initial Notification

☒B. Subsequent Notification
(Complete item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

L Y O N D E L L C H E M I C A L W O R L D W I D E I N C

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R P I K E

Street (Continued)

City or Town

N E W T O W N S Q U A R E

State

P A

Zip Code

1 9 0 7 3 - 2 3 8 7

County Code

0 4 5

County Name

D E L A W A R E

IV. Installation Mailing Address (See instructions)

Street or P.O. Box

S A M E

City or Town

State

Zip Code

-

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last)

B A K E R

(First)

T O M

Job Title

E N V S U P T

Phone Number (Area Code and Number)

6 1 0 - 3 5 9 - 4 8 4 9

VI. Installation Contact Address (See instructions)

A. Contact Address
Location Mailing☒☐

B. Street or P.O. Box

City or Town

State

Zip Code

-

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

A T L A N T I C R I C H F I E L D C O M P A N Y

Street, P.O. Box, or Route Number

5 1 5 S O U T H F L O W E R S T R E E T

City or Town

L O S A N G E L E S

State

C A

Zip Code

9 0 0 7 1 -

Phone Number (Area Code and Number)

2 1 3 - 4 8 6 - 3 5 1 1

B. Land Type

P

C. Owner Type

P

D. Change of Owner Indicator

Yes

☒

No

(Date Changed)
Month Day Year

0 7 3 1 9 8

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to Instructions)

A. Hazardous Waste Activity

1. Generator (See Instructions)
☒ a. Greater than 1000kg/mo (2,200 lbs.)
☐ b. 100 to 1000 kg/mo (220-2,200 lbs.)
☐ c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
☐ a. For own waste only
☐ b. For commercial purposes

Mode of Transportation

- ☐ 1. Air
☐ 2. Rail
☐ 3. Highway
☐ 4. Water
☐ 5. Other - specify

- ☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity, see instructions.
4. Hazardous Waste Fuel
☐ a. Generator Marketing to Burner
☐ b. Other Marketers
☐ c. Boiler and/or Industrial Furnace
☐ 1. Smelter Deferral
☐ 2. Small Quantity Exemption
 Indicate Type of Combustion Device(s)
☐ 1. Utility Boiler
☐ 2. Industrial Boiler
☐ 3. Industrial Furnace
- ☐ 5. Underground Injection Control

B. Used Oil Recycling Activities

1. Used Oil Recycling Marketer
☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device
☐ a. Utility Boiler
☐ b. Industrial Boiler
☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Combustion Device(s)
☐ a. Transporter
☐ b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
☐ a. Process
☐ b. Re-refine

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001)



2. Corrosive (D002)



3. Reactive (D003)



4. Toxicity Characteristic



(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

D 0 0 4 D 0 0 5 D 0 0 6 D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)

1
D 0 0 8
7
D 0 2 9

2
D 0 0 9
8
D 0 3 6

3
D 0 1 0
9
D 0 3 9

4
D 0 1 1
10
F 0 0 1

5
D 0 2 1
11
F 0 0 2

6
D 0 2 2
12
F 0 0 3

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number; See instructions.)

1
N 8 9 9

2
I D 7 2

3
X 8 5 0

4
X 9 0 0

5
X 9 0 5

6
X 9 1 0

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Charles W. Ruoff

Name and Official Title (Type or print)

Charles W. Ruoff, Facility Manager

Date Signed

9/7/99

XI. Comments

Removed U198 (not an EPA waste code). Changed owner back to Atlantic Richfield Company ("ARCO")

since Lyondell leases property from ARCO. Full installation name is "Lyondell Chemical Worldwide, Inc."

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

OFN: Lyondell Chem CO

BAH/cm 9/14/99 ✓MS

ID - For Official Use Only

IX. Description of Regulated Wastes (Continued; (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13			
F	0	0	4
19			
P	0	1	2
25			
P	0	4	7
31			
P	0	7	7
37			
P	1	0	6
43			
P	2	0	5
49			
U	0	1	2
55			
U	0	6	8
61			
U	1	0	2
67			
U	1	1	2
73			
U	1	2	3
79			
U	1	5	1
85			
U	1	6	2
91			
U	2	0	9
97			
U	2	2	1
103			
U	2	7	9
109			
7	7	7	7
115			
14			
F	0	0	5
20			
P	0	1	4
26			
P	0	4	8
32 +			
P	0	7	8
38			
P	1	0	8
44			
U	0	0	1
50 +			
U	0	2	9
56			
U	0	6	9
62			
U	1	0	3
68			
U	1	1	3
74			
U	1	3	3
80			
U	1	5	2
86			
U	1	6	5
92			
U	2	1	3
98			
U	2	2	2
104			
U	3	5	3
110			
116			
15			
F	0	2	7
21 +			
P	0	2	0
27			
P	0	6	8
33			
P	0	8	7
39			
P	1	1	3
45			
U	0	0	6
51			
U	0	4	1
57			
U	0	8	0
63			
U	1	0	5
69			
U	1	1	5
75			
U	1	3	4
81			
U	1	5	3
87			
U	1	6	9
93			
U	2	1	4
99			
U	2	2	3
105			
U	4	0	4
111			
117			
16			
P	0	0	3
22			
P	0	2	4
28			
P	0	6	9
34			
P	0	9	8
40			
P	1	1	9
46			
U	0	0	7
52			
U	0	4	4
58			
U	0	9	2
64			
U	1	0	6
70			
U	1	1	7
76			
U	1	3	8
82			
U	1	5	6
88			
U	1	8	8
94			
U	2	1	6
100			
U	2	2	8
106			
X	9	1	8
112			
118			
17			
P	0	0	5
23			
P	0	2	8
29			
P	0	7	5
35			
P	1	0	4
41			
P	1	2	0
47			
U	0	0	8
53			
U	0	5	2
59			
U	0	9	6
65			
U	1	0	7
71			
U	1	2	1
77			
U	1	4	4
83			
U	1	5	9
89			
U	1	9	0
95			
U	2	1	7
101			
U	2	3	8
107			
X	9	4	0
113			
119			
18			
P	0	1	1
24			
P	0	3	0
30 +			
P	0	7	6
36			
P	1	0	5
42 +			
P	1	2	1
48			
U	0	0	9
54			
U	0	5	3
60			
U	1	0	1
66			
U	1	0	8
72			
U	1	2	2
78			
U	1	4	7
84			
U	1	6	0
90 +			
U	2	0	4
96 +			
U	2	1	9
102			
U	2	4	6
108			
6	6	6	6
114			
120			



3801 West Chester Pike
Newtown Square, Pennsylvania 19073-2387
Telephone 610.359.2000

September 7, 1999

U.S. Environmental Protection Agency Region III
RCRA Programs Branch (3WC22)
1650 Arch St.
Philadelphia, PA 19103-2029

SEP 13 1999
EPA REGION III

Re: Subsequent Notification of Regulated Waste Activity
Lyondell Chemical Worldwide, Inc.
EPA ID No. PAD046538211

To Whom It May Concern:

Attached is a subsequent Notification of Regulated Waste Activity (EPA 8700-12) Form and Pennsylvania's Supplement to EPA Form 8700-12 for the hazardous waste activities at Lyondell Chemical Worldwide, Inc.'s Newtown Square facility. Waste codes typically generated by the facility have been updated, as well as the facility's contact person and legal owner. Please note that the subsequent notification we submitted in August 1998 mistakenly changed the site's legal owner from ARCO to Lyondell Chemical. Because Lyondell Chemical leases the facility from ARCO, the legal owner should be changed back to ARCO effective 7/31/98.

The Newtown Square facility is a Research & Development (R&D) facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the primary source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4849.

Sincerely,

Thomas P. Baker
Environmental Superintendent

Enclosures

cc: Pennsylvania Department of Environmental Protection
Southeast Region
Waste Management Program
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428-2233

File



**ACKNOWLEDGEMENT OF NOTIFICATION
OF REGULATED WASTE ACTIVITY
(VERIFICATION)**

This is to acknowledge that you have filed a Notification of Regulated Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Biennial Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

+

PAD046538211

08/27/98

INSTALLATION ADDRESS

LYONDELL CHEM CO
3801 W CHESTER PIKE
NEWTOWN SQUARE , PA 190732387
RITA SAMMONS ENV SUPT

3801 W CHESTER PIKE
NEWTOWN SQUARE , PA 190732387

ARCO Chemical Company
3801 West Chester Pike
Newtown Square, Pennsylvania 19073-2387
Telephone 215 359 2000



Safety, Health & Environmental

July 31, 1998

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3HW51)
841 Chestnut Building
Philadelphia, PA 19107

RECEIVED
PA/SECTION
2002 1 / 180
EPA REGION III

Re: Modification of Notification of Regulated Waste Activity
Lyondell Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD046538211

To whom it may concern:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of Lyondell Chemical Company. The waste codes typically generated by the facility are listed.

The facility was previously owned and operated by ARCO Chemical Company, which has recently merged with Lyondell Chemical Company. Lyondell is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4604.

Sincerely,

Rita M. Sammons
Environmental Superintendent

cc: PA DEP

Please refer to the Instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐ A. First Notification ☒ B. Subsequent Notification
(Complete Item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

L Y O N D E L L C H E M I C A L C O M P A N Y

III. Location of Installation (Physical address not P.O. Box or Route Number)**Street**

3 8 0 1 W e s t C h e s t e r P i k e

Street (Continued)**City or Town****State****Zip Code**

e w t o w n S q u a r e

P A

1 9 0 7 3 - 2 3 8 7

County Code**County Name**

0 4 5

D e l a w a r e

IV. Installation Mailing Address (See Instructions)**Street or P.O. Box**

S A M E

City or Town**State****Zip Code****V. Installation Contact (Person to be contacted regarding waste activities at site)****Name (Last)****(First)**

S A M M O N S

R I T A

Job Title**Phone Number (Area Code and Number)**

N V S U P T

6 1 0 - 3 5 9 - 4 6 0 4

VI. Installation Contact Address (See Instructions)**A. Contract Address
Location Mailing Other**☒ ☒ ☐**B. Street or P.O. Box****City or Town****State****Zip Code****VII. Ownership (See Instructions)****A. Name of Installation's Legal Owner**

L Y O N D E L L C H E M I C A L C O M P A N Y

Street, P.O. Box, or Route Number

1 H O U S T O N C E N T E R 1 2 2 1 M C K I N N E Y

City or Town**State****Zip Code**

H O U S T O N

T X

7 7 2 5 3 - 3 6 4 6

Phone Number (Area Code and Number)**B. Land Type****C. Owner Type****D. Change of Owner Indicator****(Date Changed)**

7 1 3 - 6 5 2 - 7 2 0 0

P

P

Yes

No

Month

Day

Year

0 7 3 1 9 8

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to Instructions)

A. Hazardous Waste Activity

B. Used Oil Recycling Activities

1. Generator (See Instructions)
☒ a. Greater than 1000kg/mo (2,200 lbs.)
☐ b. 100 to 1000 kg/mo (200-2,200 lbs.)
☐ c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
☐ a. For own waste only
☐ b. For commercial purposes
- Mode of Transportation
☐ 1. Air
☐ 2. Rail
☐ 3. Highway
☐ 4. Water
☐ 5. Other - specify
3. Treater, Storer, Disposer (at Installation) Note: A permit is required for this activity; see instructions.
4. Hazardous Waste Fuel
☐ a. Generator Marketing to Burner
☐ b. Other Marketers
☐ c. Boiler and/or Industrial Furnace
☐ 1. Smelter Deferral
☐ 2. Small Quantity Exemption
Indicate Type of Combustion Device(s)
☐ 1. Utility Boiler
☐ 2. Industrial Boiler
☐ 3. Industrial Furnace
5. Underground Injection Control

1. Used Oil Fuel Marketer
☐ a. Marketer Directs Shipment of Used Oil to Off-Specification Burner
☐ b. Marketer Who First Claims the Used Oil Meets the Specifications
2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
☐ a. Utility Boiler
☐ b. Industrial Boiler
☐ c. Industrial Furnace
3. Used Oil Transporter - Indicate Type(s) of Activity(ies)
☐ a. Transporter
☐ b. Transfer Facility
4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
☐ a. Process
☐ b. Re-refine

IX. Description of Hazardous Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001) ☒ 2. Corrosive (D002) ☒ 3. Reactive (D003) ☒ 4. Toxicity Characteristic (List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))
☒ D 0 0 4 ☒ D 0 0 5 ☒ D 0 0 6 ☒ D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See Instructions if you need to list more than 12 waste codes.)

1 D 0 0 8	2 D 0 0 9	3 D 0 1 0	4 D 0 1 1	5 D 0 2 1	6 D 0 2 2
7 D 0 2 9	8 D 0 3 9	9 F 0 0 1	10 F 0 0 2	11 F 0 0 3	12 F 0 0 4

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number; See Instructions.)

1 X 8 5 0	2 X 9 0 0	3 X 9 0 5	4 X 9 1 0	5 X 9 1 8	6 X 9 4 0
--------------	--------------	--------------	--------------	--------------	--------------

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature <i>Charles W. Ruoff</i>	Name and Official Title (Type or print) Charles W. Ruoff, Facility Manager	Date Signed 8/3/98
--------------------------------------	-------------------------------------------------------------------------------	-----------------------

XI. Comments

DFN: Arco Chem Co R&D

BAH/MS 8/21/98

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

ID - For Official Use Only

IX. Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13	14	15	16	17	18
F 0 0 5	F 0 2 7	I D 7 2	N 8 9 9	P 0 0 3	P 0 0 5
19	20	21	22	23	24
P 0 1 1	P 0 1 2	P 0 1 4	P 0 2 4	P 0 2 8	P 0 3 0
25	26	27	28	29	30
P 0 4 7	P 0 4 8	P 0 6 8	P 0 6 9	P 0 7 5	P 0 7 7
31	32	33	34	35	36
P 0 8 7	P 0 9 8	P 1 0 4	P 1 0 5	P 1 0 6	P 1 0 8
37	38	39	40	41	42
P 1 1 3	P 1 1 9	P 1 2 0	P 2 0 5	U 0 0 1	U 0 0 6
43	44	45	46	47	48
U 0 0 7	U 0 0 8	U 0 0 9	U 0 1 2	U 0 4 1	U 0 5 2
49	50	51	52	53	54
U 0 5 3	U 0 6 8	U 0 6 9	U 0 8 0	U 0 9 2	U 0 9 6
55	56	57	58	59	60
U 1 0 1	U 1 0 2	U 1 0 3	U 1 0 5	U 1 0 6	U 1 0 7
61	62	63	64	65	66
U 1 0 8	U 1 1 2	U 1 1 3	U 1 1 5	U 1 1 7	U 1 2 1
67	68	69	70	71	72
U 1 2 2	U 1 2 3	U 1 3 3	U 1 3 4	U 1 3 8	U 1 4 4
73	74	75	76	77	78
U 1 4 7	U 1 5 1	U 1 5 2	U 1 5 3	U 1 5 6	U 1 5 9
79	80	81	82	83	84
U 1 6 0	U 1 6 2	U 1 6 5	U 1 6 9	U 1 8 8	U 1 9 0
85	86	87	88	89	90
U 1 9 8	U 2 0 9	U 2 1 3	U 2 1 4	U 2 1 6	U 2 1 7
91	92	93	94	95	96
U 2 2 1	U 2 2 2	U 2 2 3	U 2 2 8	U 2 3 8	U 2 4 6
97	98	99	100	101	102
U 2 7 9	U 3 5 3	U 4 0 4	6 6 6 6	7 7 7 7	
103	104	105	106	107	108
109	110	111	112	113	114
115	116	117	118	119	120

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Please refer to the Instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐ A. First Notification ☒ B. Subsequent Notification (Complete item C)

C. Installation's EPA ID Number

P A A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

A R C O C H E M I C A L C O M P A N Y R & D

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R B I K E

Street (Continued)

City or Town

N E W T O W N S Q U A R E

State

Zip Code

P A 1 9 0 7 3 - 2 3 8 7

County Code

County Name

D E L A W A R E

IV. Installation Mailing Address (See Instructions)

Street or P.O. Box

S A M E

City or Town

State

Zip Code

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last)

(First)

S A M M O N S R I T A

Job Title

Phone Number (Area Code and Number)

E N V S U P T 6 1 0 - 3 5 9 - 4 6 0 4

VI. Installation Contact Address (See Instructions)

A. Contact Address

Location Mailing Other

☒ ☒ ☐

B. Street or P.O. Box

City or Town

State

Zip Code

VII. Ownership (See Instructions)

A. Name of Installation's Legal Owner

A R C O

Street, P.O. Box, or Route Number

1 0 5 5 F L O W E R S T R E E T

City or Town

State

Zip Code

L O S A N G E L E S C A 9 0 0 7 1 -

Phone Number (Area Code and Number)

B. Land Type

C. Owner Type

D. Change of Owner Indicator

(Date Changed) Month Day Year

2 1 3 - 4 8 6 - 3 5 1 1 P P Yes ☒ No ☐ Month Day Year

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to Instructions)

A. Hazardous Waste Activity		B. Used Oil Recycling Activities
1. Generator (See Instructions) <input checked="" type="checkbox"/> a. Greater than 1000kg/mo (2,200 lbs.) <input type="checkbox"/> b. 100 to 1000 kg/mo (200-2,200 lbs.) <input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.) 2. Transporter (Indicate Mode in boxes 1-5 below) <input type="checkbox"/> a. For own waste only <input type="checkbox"/> b. For commercial purposes Mode of Transportation <input type="checkbox"/> 1. Air <input type="checkbox"/> 2. Rail <input type="checkbox"/> 3. Highway <input type="checkbox"/> 4. Water <input type="checkbox"/> 5. Other - specify _____ _____	<input type="checkbox"/> 3. Treater, Storer, Disposer (at Installation) Note: A permit is required for this activity; see Instructions. <input type="checkbox"/> 4. Hazardous Waste Fuel <input type="checkbox"/> a. Generator Marketing to Burner <input type="checkbox"/> b. Other Marketers <input type="checkbox"/> c. Boiler and/or Industrial Furnace <input type="checkbox"/> 1. Smelter Deferral <input type="checkbox"/> 2. Small Quantity Exemption Indicate Type of Combustion Device(s) <input type="checkbox"/> 1. Utility Boiler <input type="checkbox"/> 2. Industrial Boiler <input type="checkbox"/> 3. Industrial Furnace <input type="checkbox"/> 5. Underground Injection Control	1. Used Oil Fuel Marketer <input type="checkbox"/> a. Marketer Directs Shipment of Used Oil to Off-Specification Burner <input type="checkbox"/> b. Marketer Who First Claims the Used Oil Meets the Specifications 2. Used Oil Burner - Indicate Type(s) of Combustion Device(s) <input type="checkbox"/> a. Utility Boiler <input type="checkbox"/> b. Industrial Boiler <input type="checkbox"/> c. Industrial Furnace 3. Used Oil Transporter - Indicate Type(s) of Activity(ies) <input type="checkbox"/> a. Transporter <input type="checkbox"/> b. Transfer Facility 4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies) <input type="checkbox"/> a. Process <input type="checkbox"/> b. Re-refine

IX. Description of Hazardous Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001)	2. Corrosive (D002)	3. Reactive (D003)	4. Toxicity Characteristic (List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> D 0 0 4 D 0 0 5 D 0 0 6 D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)

1 F 0 0 1	2 F 0 0 2	3 F 0 0 3	4 F 0 0 4	5 F 0 0 5	6 F 0 2 7
7 D 0 0 8	8 D 0 0 9	9 D 0 1 0	10 D 0 1 1	11 D 0 2 2	12 D 0 2 9

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number; See Instructions.)

1 X 8 5 0	2 X 9 0 0	3 X 9 1 0	4 X 9 4 0	5 X 9 1 8	6 6 6 6 6
--------------	--------------	--------------	--------------	--------------	--------------

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature <i>Charles W. Ruoff</i>	Name and Official Title (Type or print) Charles W. Ruoff Facility Manager	Date Signed 1/20/98
--------------------------------------	---------------------------------------------------------------------------------	------------------------

XI. Comments

Codes with + next to them were already entered in the comments section.
 Codes with ++ next to them were added to the waste code section.

BAH/MS 2/6/98

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

ID - For Official Use Only

IX. Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13	D 0 3 9	14	I D 7 2	15	N 8 9 9	16	P 0 0 3	17	P 0 0 5	18	P 0 1 1
19	P 0 1 2	20	P 0 1 4	21	P 0 2 4	22	P 0 2 8	23	P 0 3 0	24	P 0 4 7
25	P 0 4 8	26	P 0 6 8	27	P 0 6 9	28	P 0 7 5	29	P 0 7 7	30	P 0 8 7
31	P 0 9 8	32	P 1 0 4	33	P 1 0 5	34	P 1 0 6	35	P 1 0 8	36	P 1 1 3
37	P 1 1 9	38	P 1 2 0	39	P 2 0 5	40	U 0 0 1	41	U 0 0 6	42	U 0 0 7
43	U 0 0 8	44	U 0 0 9	45	U 0 1 2	46	U 0 4 1	47	U 0 5 2	48	U 0 5 3
49	U 0 6 8	50	U 0 6 9	51	U 0 8 0	52	U 0 9 2	53	U 0 9 6	54	U 1 0 1
55	U 1 0 2	56	U 1 0 3	57	U 1 0 5	58	U 1 0 6	59	U 1 0 7	60	U 1 0 8
61	U 1 1 2	62	U 1 1 3	63	U 1 1 7	64	U 1 2 1	65	U 1 2 2	66	U 1 2 3
67	U 1 3 3	68	U 1 3 4	69	U 1 4 4	70	U 1 3 8	71	U 1 4 7	72	U 1 5 1
73	U 1 5 2	74	U 1 5 6	75	U 1 6 0	76	U 1 6 2	77	U 1 6 5	78	U 1 6 9
79	U 1 8 8	80	U 1 9 0	81	U 1 9 8	82	U 2 0 9	83	U 2 1 3	84	U 2 1 4
85	U 2 1 6	86	U 2 1 7	87	U 2 2 1	88	U 2 2 2	89	U 2 2 3	90	U 2 2 8
91	U 2 3 8	92	U 2 4 6	93	U 3 5 3	94	U 4 0 4	95	7 7 7 7	96	U 2 7 9
97	D 0 2 1	98		99		100		101		102	
103		104		105		106		107		108	
109		110		111		112		113		114	
115		116		117		118		119		120	

ARCO Chemical Company
3801 West Chester Pike
Newtown Square, Pennsylvania 19073-2387
Telephone 215 359 2000



Safety, Health & Environmental

January 19, 1998

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3HW51)
841 Chestnut Building
Philadelphia, PA 19107

RECEIVED
JAN 21 1998
EPA REGION III

Re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD046538211

To whom it may concern:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company (ACC). The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4604.

Sincerely,

Rita M. Sammons
Environmental Superintendent

RMS/cvw
Encl.

cc: Pennsylvania Department of Environmental Protection
Bureau of Land Recycling and Waste Management
Waste Management Program
16th Floor, Rachel Carson State Office Building
PO Box 2063
Harrisburg, PA 17105-2063



ACKNOWLEDGEMENT OF NOTIFICATION
OF REGULATED WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Regulated Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

200046538211

10/02/96

INSTALLATION ADDRESS

ARCO CHEMICAL CO R&D
3801 WEST CHESTER PIKE
WENTOWN SQUARE, PA. 190732387
RITA SAMMONS ENV SUPT

3801 WEST CHESTER PIKE
WENTOWN SQUARE, PA. 190732387

ARCO Chemical Company

3801 West Chester Pike
Newtown Square, Pennsylvania 19073-3280
Telephone 610 359 2000



Safety, Health, Environmental & Security
April 24, 1996

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3 HW51)
841 Chestnut Building
Philadelphia, PA 19107

RECEIVED
PA/DC SECTION
APR 24 1996
EPA REGION III

Re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD 046538211

To whom it may concern:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company (ACC). The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4604.

Sincerely,

Rita M. Sammons
Environmental Superintendent

Enclosures

Please refer to the instructions for filling this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐ A. First Notification ☒ B. Subsequent Notification (Complete Item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

A R C O C H E M I C A L C O M P A N Y R & D

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R P I K E

Street (Continued)

City or Town

N E W T O W N S Q U A R E

State

P A

Zip Code

1 9 0 7 3 - 2 3 8 7

County Code

County Name

D E L A W A R E

IV. Installation Mailing Address (See Instructions)

Street or P.O. Box

S A M E

City or Town

State

Zip Code

-

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last)

S A M M C N S

(First)

R I T A

Job Title

E N V S U P T

Phone Number (Area Code and Number)

6 1 0 - 3 5 9 - 4 6 0 4

VI. Installation Contact Address (See Instructions)

A. Contact Address

Location Mailing Other

☒ ☒ ☐

B. Street or P.O. Box

City or Town

State

Zip Code

-

VII. Ownership (See Instructions)

A. Name of Installation's Legal Owner

A R C O

Street, P.O. Box, or Route Number

1 0 5 5 S F L O W E R S T R E E T

City or Town

L O S A N G E L E S

State

C A

Zip Code

9 0 0 7 1 -

Phone Number (Area Code and Number)

2 1 3 - 4 8 6 - 3 5 1 1

B. Land Type

P

C. Owner Type

P

D. Change of Owner Indicator

Yes ☐ No ☒

(Date Changed)

Month Day Year

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to Instructions)

A. Hazardous Waste Activity		B. Used Oil Recycling Activities	
<input checked="" type="checkbox"/> 1. Generator (See Instructions) <input type="checkbox"/> a. Greater than 1000kg/mo (2,200 lbs.) <input type="checkbox"/> b. 100 to 1000 kg/mo (200-2,200 lbs.) <input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.) <input type="checkbox"/> 2. Transporter (Indicate Mode in boxes 1-5 below) <input type="checkbox"/> a. For own waste only <input type="checkbox"/> b. For commercial purposes Mode of Transportation <input type="checkbox"/> 1. Air <input type="checkbox"/> 2. Rail <input type="checkbox"/> 3. Highway <input type="checkbox"/> 4. Water <input type="checkbox"/> 5. Other specify _____	<input type="checkbox"/> 3. Treater, Storer, Disposer (at Installation) Note: A permit is required for this activity; see Instructions. <input type="checkbox"/> 4. Hazardous Waste Fuel <input type="checkbox"/> a. Generator Marketing to Burner <input type="checkbox"/> b. Other Marketers <input type="checkbox"/> c. Boiler and/or Industrial Furnace <input type="checkbox"/> 1. Smelter/Refinery <input type="checkbox"/> 2. Small Quantity Exemption Indicate Type of Combustion Device(s) <input type="checkbox"/> 1. Utility Boiler <input type="checkbox"/> 2. Industrial Boiler <input type="checkbox"/> 3. Industrial Furnace <input type="checkbox"/> 5. Underground Injection Control	<input type="checkbox"/> 1. Used Oil Fuel Marketer <input type="checkbox"/> a. Marketer Directs Shipment of Used Oil to Off-Specification Burner <input type="checkbox"/> b. Marketer Who First Claims the Used Oil Meets the Specifications <input type="checkbox"/> 2. Used Oil Burner - Indicate Type(s) of Combustion Device(s) <input type="checkbox"/> a. Utility Boiler <input type="checkbox"/> b. Industrial Boiler <input type="checkbox"/> c. Industrial Furnace <input type="checkbox"/> 3. Used Oil Transporter - Indicate Type(s) of Activity(ies) <input type="checkbox"/> a. Transporter <input type="checkbox"/> b. Transfer Facility <input type="checkbox"/> 4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies) <input type="checkbox"/> a. Process <input type="checkbox"/> b. Re-refine	

IX. Description of Hazardous Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

Ignitable (D001)	Corrosive (D002)	Reactive (D003)	Toxicity Characteristic (List specific EPA hazardous waste number(s) for the Toxicity characteristic waste(s))
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> D 0 0 4 D 0 0 5 D 0 0 6 D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See Instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
F 0 0 1	F 0 0 2	F 0 0 3	F 0 0 4	F 0 0 5	P 0 0 3
P 0 0 5	P 0 1 1	P 0 1 2	P 0 2 4	P 0 2 8	P 0 3 0

C. Other Wastes. (State or other wastes requiring a handler to have an LD. number; See Instructions.)

1	2	3	4	5	6
X 8 5 0	X 9 0 0	X 9 1 0	X 9 4 0	6 6 6 6	7 7 7 7

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Name and Official Title (Type or print)	Date Signed
<i>Charles W. Ruoff</i>	Charles W. Ruoff / Facility Mgr.	4/24/96

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

BAH/c2 8/9/96
AK

ID - For Official Use Only

IX: Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13 D 0 0 8	14 D 0 0 9	15 D 0 1 0	16 D 0 1 1	17 D 0 2 2	18 D 0 3 6
19 D 0 3 9	20 P 0 6 9	21 P 1 0 4	22 P 1 0 6	23 P 1 0 8	24 P 1 1 3
25 P 1 1 9	26 P 1 2 0	27 U 0 0 1	28 U 0 0 6	29 U 0 0 7	30 U 0 0 8
31 U 0 0 9	32 U 0 1 2	33 U 0 4 1	34 U 0 5 2	35 U 0 6 8	36 U 0 8 0
37 U 1 0 1	38 U 1 0 2	39 U 1 0 3	40 U 1 0 8	41 U 1 1 2	42 U 1 1 3
43 U 1 1 7	44 U 1 2 1	45 U 1 2 2	46 U 1 2 3	47 U 1 3 4	48 U 1 4 4
49 U 1 4 7	50 U 1 5 1	51 U 1 5 2	52 U 1 5 6	53 U 1 6 0	54 U 1 6 2
55 U 1 6 5	56 U 1 6 9	57 U 1 8 8	58 U 1 9 0	59 U 2 0 9	60 U 2 1 3
61 U 2 1 4	62 U 2 1 6	63 U 2 1 7	64 U 2 2 1	65 U 2 2 2	66 U 2 2 3
67 U 2 2 8	68 U 2 3 8	69 P 0 9 8	70 U 1 3 3	71 P 0 7 7	72 U 1 0 6
73 U 2 4 6	74 E 0 4 8	75 P 0 8 7	76 P 1 0 5		
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102
103	104	105	106	107	108
109	110	111	112	113	114
115	116	117	118	119	120

ARCO Chemical Company

3801 West Chester Pike
Newtown Square, Pennsylvania 19073-3280
Telephone 610 359 2000

Safety, Health, Environmental & Security
July 1, 1996



RECEIVED
EPA REGION III

JUL 14 1996

EPA REGION III

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3 HW51)
841 Chestnut Building
Philadelphia, PA 19107

Re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD 046538211

To whom it may concern:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company (ACC). The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4604.

Sincerely,

Rita M. Sammons
Environmental Superintendent

Enclosures

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Please refer to the Instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act)		EPA		Notification of Regulated Waste Activity		Date Received (For Official Use Only) RECEIVED IRON	
United States Environmental Protection Agency							
I. Installation's EPA ID Number (Mark 'X' in the appropriate box)							
<input type="checkbox"/> A. First Notification		<input checked="" type="checkbox"/> B. Subsequent Notification (Complete Item C)		C. Installation's EPA ID Number			
				P	A	D	0 4 6 5 A REGION 1
II. Name of Installation (Include company and specific site name)							
A R C O C H E M I C A L C O M P A N Y R & D							
III. Location of Installation (Physical address not P.O. Box or Route Number)							
Street							
3 8 0 1 W E S T C H E S T E R P I K E							
Street (Continued)							
City or Town						State	Zip Code
N E W T O W N S Q U A R E						P A	1 9 0 7 3 - 2 3 8 7
County Code		County Name					
		D E L A W A R E					
IV. Installation Mailing Address (See Instructions)							
Street or P.O. Box							
S A M E							
City or Town						State	Zip Code
							-
V. Installation Contact (Person to be contacted regarding waste activities at site)							
Name (Last)				First			
S A M M C N S				R I T A			
Job Title				Phone Number (Area Code and Number)			
E N V S U P T				6 1 0 - 3 5 9 - 4 6 0 4			
VI. Installation Contact Address (See Instructions)							
A. Contract Address		B. Street or P.O. Box					
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>							
City or Town						State	Zip Code
							-
VII. Ownership (See Instructions)							
A. Name of Installation's Legal Owner							
A R C O							
Street, P.O. Box, or Route Number							
1 0 5 5 S F L O W E R S T R E E T							
City or Town						State	Zip Code
L O S A N G E L E S						C A	9 0 0 7 1 -
Phone Number (Area Code and Number)				B. Land Type	C. Owner Type	D. Change of Owner Indicator (Date Changed)	
2 1 3 - 4 8 6 - 3 5 1 1				P	P	Yes	Month Day Year
						X	

ID For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to Instructions)

A. Hazardous Waste Activity		B. Used Oil Recycling Activities	
1. Generator (See Instructions)	3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see Instructions	1. Used Oil Fuel Markers	2. Used Oil Burner - Indicate Type(s) of Combustion Device(s)
<input checked="" type="checkbox"/> a. Greater than 1000 kg/mo (2,200 lbs.)	<input type="checkbox"/> a. Generator Marketing to Burner	<input type="checkbox"/> a. Marketer Directs Shipment of Used Oil to Off-Specification Burner	<input type="checkbox"/> a. Utility Boiler
<input type="checkbox"/> b. 100 to 1000 kg/mo (200-2,200 lbs.)	<input type="checkbox"/> b. Other Marketers	<input type="checkbox"/> b. Marketer Who First Cleans the Used Oil Meets the Specifications	<input type="checkbox"/> b. Industrial Boiler
<input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.)	<input type="checkbox"/> c. Boiler and/or Industrial Furnace	<input type="checkbox"/> c. Meets the Specifications	<input type="checkbox"/> c. Industrial Furnace
2. Transporter (Indicate Mode in boxes 1-5 below)	4. Hazardous Waste Fuel	3. Used Oil Transporter - Indicate Type(s) of Activity(ies)	4. Used Oil Processor/Re-refiner - Indicate Type(s) of Activity(ies)
<input type="checkbox"/> a. For own waste only	<input type="checkbox"/> 1. Smaller Deferral	<input type="checkbox"/> a. Transporter	<input type="checkbox"/> a. Processor
<input type="checkbox"/> b. For commercial purposes	<input type="checkbox"/> 2. Small Quantity Exemption	<input type="checkbox"/> b. Transfer Facility	<input type="checkbox"/> b. Re-refiner
Mode of Transportation	Indicate Type(s) of Combustion Device(s)		
<input type="checkbox"/> 1. Air	<input type="checkbox"/> Utility Boiler		
<input type="checkbox"/> 2. Rail	<input type="checkbox"/> 2. Industrial Boiler		
<input type="checkbox"/> 3. Highway	<input type="checkbox"/> 3. Industrial Furnace		
<input type="checkbox"/> 4. Water	<input type="checkbox"/> 4. Underground Injection Control		
<input type="checkbox"/> 5. Other - specify _____			

IX. Description of Hazardous Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

Ignitable (D001)	Corrosive (D002)	Reactive (D003)	Toxicity Characteristic (List specific EPA hazardous waste number(s) for the Toxicity characteristic code number(s))
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> D 0 0 4 D 0 0 5 D 0 0 6 D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See Instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
F 0 0 1	F 0 0 2	F 0 0 3	F 0 0 4	F 0 0 5	P 0 0 3
P 0 0 5	P 0 1 1	P 0 1 2	P 0 2 4	P 0 2 8	P 0 3 0

C. Other Wastes. (State or other wastes requiring a handler to have an LD. number; See Instructions.)

1	2	3	4	5	6
X 8 5 0	X 9 0 0	X 9 1 0	X 9 4 0	6 6 6 5	7 7 7 7

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Charles W. Ruoff

Name and Official Title (Type or print)

Charles W. Ruoff,
Facility Manager

Date Signed

R.E. 2/2/96

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

10 For Official Use Only

X. Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13 D 0 0 8	14 D 0 0 9	15 D 0 1 0	16 D 0 1 1	17 D 0 2 2	18 D 0 3 6
19 D 0 3 9	20 P 0 6 9	21 P 1 0 4	22 P 1 0 6	23 P 1 0 8	24 P 1 1 3
25 P 1 1 9	26 P 1 2 0	27 U 0 0 1	28 U 0 0 6	29 U 0 0 7	30 U 0 0 8
31 U 0 0 9	32 U 0 1 2	33 U 0 4 1	34 U 0 5 2	35 U 0 6 8	36 U 0 8 0
37 U 1 0 1	38 U 1 0 2	39 U 1 0 3	40 U 1 0 8	41 U 1 1 2	42 U 1 1 3
43 U 1 1 7	44 U 1 2 1	45 U 1 2 2	46 U 1 2 3	47 U 1 3 4	48 U 1 4 4
49 U 1 4 7	50 U 1 5 1	51 U 1 5 2	52 U 1 5 6	53 U 1 6 0	54 U 1 6 2
55 U 1 6 5	56 U 1 6 9	57 U 1 8 8	58 U 1 9 0	59 U 2 0 9	60 U 2 1 3
61 U 2 1 4	62 U 2 1 6	63 U 2 1 7	64 U 2 2 1	65 U 2 2 2	66 U 2 2 3
67 U 2 2 8	68 U 2 3 8	69 P 0 9 8	70 U 1 3 3	71 P 0 7 7	72 U 1 0 6
73 U 2 4 6	74 P 0 4 8	75 P 0 8 7	76 P 1 0 5	77 U 0 9 6	78 U 3 5 3
79 P 0 6 8	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102
103	104	105	106	107	108
109	110	111	112	113	114
115	116	117	118	119	120



ACKNOWLEDGEMENT OF NOTIFICATION
OF REGULATED WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Regulated Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

+

PAD046538211

09/24/95

INSTALLATION ADDRESS

ARCO CHEMICAL CO R&D
3801 WEST CHESTER PIKE
NEWTOWN SQUARE, PA 190732387
RITA SAMMONS ENV SUPT

3801 WEST CHESTER PIKE
NEWTOWN SQUARE, PA 190732387

ARCO Chemical Company

3801 West Chester Pike
Newtown Square, Pennsylvania 19073-3280
Telephone 610 359 2000

Safety, Health, Environmental & Security



September 9, 1996

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3HW51)
841 Chestnut Building
Philadelphia, PA 19107

RECEIVED
EPA REGION III

Re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD 046538211

To whom it may concern:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company (ACC). The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report, please contact me at (610) 359-4604.

Sincerely,

Rita M. Sammons
Environmental Superintendent

Enclosures

Please refer to the Instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

<input type="checkbox"/> A: First Notification	<input checked="" type="checkbox"/> B: Subsequent Notification (Complete Item C)	C: Installation's EPA ID Number
		P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

A R C O C H E M I C A L C O M P A N Y R & D

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street:
3 8 0 1 W E S T C H E S T E R P I K E

Street (Continued)

City or Town	State	Zip Code
N E W T O W N S Q U A R E	P A	1 9 0 7 3 - 2 B 8 7

County Code	County Name
	D E L A W A R E

IV. Installation Mailing Address (See Instructions)

Street or P.O. Box:
S A M E

City or Town	State	Zip Code
		-

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (Last)	(First)
S A M M C N S	R I T A
Job Title	Phone Number (Area Code and Number)
E N V S U P T	6 1 0 - 3 5 9 - 4 6 0 4

VI. Installation Contact Address (See Instructions)

A: Contact Address (Location: Mailing, Other)	B: Street or P.O. Box	
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>		
City or Town	State	Zip Code
		-

VII. Ownership (See Instructions)

A: Name of Installation's Legal Owner
A R C O

Street, P.O. Box, or Route Number
1 0 5 5 S F L O W E R S T R E E T

City or Town	State	Zip Code
L O S A N G E L E S	C A	9 0 0 7 1 -

Phone Number (Area Code and Number)	B: Land Type	C: Owner Type	D: Change of Ownership (Indicate Month, Day, and Year)
2 1 3 - 4 8 6 - 3 5 1 1	P	P	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

New Form ID: For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes; Refer to instructions)

A. Hazardous Waste Activity		B. Used Oil Recycling Activities	
Generator (See instructions):	3. Treater, Storer, Disposer (or Installation) Note: A permit is required for this activity; see instructions.	1. Used Oil Fuel Markers:	1. Used Oil Fuel Markers:
<input checked="" type="checkbox"/> a. Greater than 1000 kg/mo (2,200 lbs.)		<input type="checkbox"/> a. Marketer/Operator: Direct Shipment of Used Oil to Off-Specification Burners	<input type="checkbox"/> a. Marketer/Operator: Direct Shipment of Used Oil to Off-Specification Burners
<input type="checkbox"/> b. 100 to 1000 kg/mo (200-2,200 lbs.)		<input type="checkbox"/> b. Marketer/Operator: First Claim the Used Oil Meets the Specifications	<input type="checkbox"/> b. Marketer/Operator: First Claim the Used Oil Meets the Specifications
<input type="checkbox"/> c. Less than 100 kg/mo (220 lbs.)		2. Used Oil Burner: Indicate Type(s) of Combustion Device(s):	2. Used Oil Burner: Indicate Type(s) of Combustion Device(s):
2. Transporter (Indicate Mode in boxes 1-6 below):	4. Hazardous Waste Fuel:	<input type="checkbox"/> a. Utility Boiler	<input type="checkbox"/> a. Utility Boiler
<input type="checkbox"/> a. For own waste only	<input type="checkbox"/> a. Generator/Marketer to Burner	<input type="checkbox"/> b. Industrial Boiler	<input type="checkbox"/> b. Industrial Boiler
<input type="checkbox"/> b. For commercial purposes	<input type="checkbox"/> b. Other Marketers	<input type="checkbox"/> c. Industrial Furnace	<input type="checkbox"/> c. Industrial Furnace
Mode of Transportation:	<input type="checkbox"/> c. Boiler and/or Industrial Furnace	3. Used Oil Transporter: Indicate Type(s) of Activity (see instructions):	3. Used Oil Transporter: Indicate Type(s) of Activity (see instructions):
<input type="checkbox"/> 1. Air	<input type="checkbox"/> 1. Small Quantity Exemptions	<input type="checkbox"/> a. Transporter	<input type="checkbox"/> a. Transporter
<input type="checkbox"/> 2. Rail	<input type="checkbox"/> 2. Small Quantity Exemptions	<input type="checkbox"/> b. Transfer Facility	<input type="checkbox"/> b. Transfer Facility
<input type="checkbox"/> 3. Highway	Indicate Type of Combustion Device(s):	<input type="checkbox"/> c. Used Oil Processor/Refiner: Indicate Type(s) of Activity (see instructions):	<input type="checkbox"/> c. Used Oil Processor/Refiner: Indicate Type(s) of Activity (see instructions):
<input type="checkbox"/> 4. Water	<input type="checkbox"/> 1. Utility Boiler	<input type="checkbox"/> a. Process	<input type="checkbox"/> a. Process
<input type="checkbox"/> 5. Other: specify _____	<input type="checkbox"/> 2. Industrial Boiler	<input type="checkbox"/> b. Refine	<input type="checkbox"/> b. Refine
	<input type="checkbox"/> 3. Industrial Furnace		
	5. Underground Injection Control		

IX. Description of Hazardous Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. (Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles; See 40 CFR Parts 261.20 - 261.24)

1. Corrosive (D001)	2. Ignitable (D002)	3. Reactive (D003)	4. Toxicity (D004)	5. Other (D005)
X	X	X	X	

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; See instructions if you need to list more than 12 waste codes.)

F 0 0 1	F 0 0 2	F 0 0 3	F 0 0 4	F 0 0 5	P 0 0 3
P 0 0 5	P 0 1 1	P 0 1 2	P 0 2 4	P 0 2 8	P 0 3 0

C. Other Wastes. (State or other wastes requiring a handler to have an LD number; See instructions.)

X 8 5 0	X 9 0 0	X 9 1 0	X 9 4 0	6 6 6 6	7 7 7 7
---------	---------	---------	---------	---------	---------

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Charles W. Ruoff

Name and Official Title (Type or print)

Charles W. Ruoff,
Facility Manager

Date Signed

9/12/96

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section IV of the booklet for addresses.)

AEV

EPA Form 8700-12 (Rev. 11-30-83) Previous edition is obsolete.

IX. Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13 D 0 0 8	14 D 0 0 9	15 D 0 1 0	16 D 0 1 1	17 D 0 2 2	18 D 0 3 6
19 D 0 3 9	20 P 0 6 9	21 P 1 0 4	22 P 1 0 6	23 P 1 0 8	24 P 1 1 3
25 P 1 1 9	26 P 1 2 0	27 U 0 0 1	28 U 0 0 6	29 U 0 0 7	30 U 0 0 8
31 U 0 0 9	32 U 0 1 2	33 U 0 4 1	34 U 0 5 2	35 U 0 6 8	36 U 0 8 0
37 U 1 0 1	38 U 1 0 2	39 U 1 0 3	40 U 1 0 8	41 U 1 1 2	42 U 1 1 3
43 U 1 1 7	44 U 1 2 1	45 U 1 2 2	46 U 1 2 3	47 U 1 3 4	48 U 1 4 4
49 U 1 4 7	50 U 1 5 1	51 U 1 5 2	52 U 1 5 6	53 U 1 6 0	54 U 1 6 2
55 U 1 6 5	56 U 1 6 9	57 U 1 8 8	58 U 1 9 0	59 U 2 0 9	60 U 2 1 3
61 U 2 1 4	62 U 2 1 6	63 U 2 1 7	64 U 2 2 1	65 U 2 2 2	66 U 2 2 3
67 U 2 2 8	68 U 2 3 8	69 P 0 9 8	70 U 1 3 3	71 P 0 7 7	72 U 1 0 6
73 U 2 4 6	74 P 0 4 8	75 P 0 8 7	76 P 1 0 5	77 U 0 9 6	78 U 3 5 3
79 P 0 6 8	80 U 0 5 3	81 U 1 0 5	82 N 8 9 9	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102
103	104	105	106	107	108
109	110	111	112	113	114
115	116	117	118	119	120

ARCO Chemical Company
3801 West Chester Pike
Newtown Square, Pennsylvania 19073-2387
Telephone (610) 359 2000



July 12, 1995

U.S. EPA Region III
RCRA Programs Branch
Pennsylvania Section (3 HW51)
841 Chestnut Building
Philadelphia, PA 19107

RECEIVED
PA/PC SECTION
JUL 13 1995
EPA REGION III

re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD 046538211

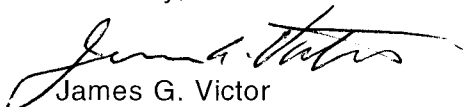
Dear Sirs:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company. The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report please contact me at (610) 359-2392.

Sincerely,


James G. Victor
Manager, Materials Management

JGV
Enclosures

copy: T.A. Bailey/NSC
A.H. Goldsmith/D2
M.G. Griffith/EOB
T.J. Senn/D1
C.W. Ruoff/D1

Please refer to the instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



EPA

Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐

A. First Notification

☒

B. Subsequent Notification
(complete item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 Y 1/1

II. Name of Installation (Include company and specific site name)

A R C O C H E M I C A L C O M P A N Y R & D

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R P I K E

Street (continued)

City or Town

N E W T O W N S Q U A R E

State

ZIP Code

P A

1 9 0 7 3 -

County Code

County Name

D E L A W A R E

IV. Installation Mailing Address (See instructions)

Street or P.O. Box

S A M E

City or Town

State

ZIP Code

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (last)

V I C T O R

(first)

J A M E S

Job Title

M G R M A T E R I A L S

Phone Number (area code and number)

6 1 0 - 3 5 9 - 2 3 9 2

VI. Installation Contact Address (See instructions)

A. Contact Address
Location Mailing

☒

☒

B. Street or P.O. Box

City or Town

State

ZIP Code

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

A R C O

Street, P.O. Box, or Route Number

1 0 5 5 S F L O W E R S T R E E T

City or Town

L O S A N G E L E S

State

ZIP Code

C A

9 0 0 7 1 -

Phone Number (area code and number)

2 1 3 - 4 8 6 - 3 5 1 1

B. Land Type

☒

C. Owner Type

☒

D. Change of Owner Indicator

Yes

No

☒

(Date Changed)
Month Day Year

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to instructions.)

A. Hazardous Waste Activity

1. Generator (See instructions)
- ☒ a. Greater than 1000kg/mo (2,200 lbs.)
- ☐ b. 100 to 1000 kg/mo (220 - 2,200 lbs.)
- ☐ c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
- ☐ a. For own waste only
- ☐ b. For commercial purposes
- Mode of Transportation
- ☐ 1. Air
- ☐ 2. Rail
- ☐ 3. Highway
- ☐ 4. Water
- ☐ 5. Other - specify
- ☐ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.
4. Hazardous Waste Fuel
- ☐ a. Generator Marketing to Burner
- ☐ b. Other Marketers
- ☐ c. Boiler and/or Industrial Furnace
- ☐ 1. Smelter/Referral
- ☐ 2. Small Quantity Exemption
- Indicate Type of Combustion Device(s)
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace
- ☐ 5. Underground Injection Control

B. Used Oil Fuel Activities

1. Off-Specification Used Oil Fuel
- ☐ a. Generator Marketing to Burner
- ☐ b. Other Marketer
- ☐ c. Burner - Indicate device(s) - Type of Combustion Device
- ☐ 1. Utility Boiler
- ☐ 2. Industrial Boiler
- ☐ 3. Industrial Furnace
- ☐ 2. Specification Used Oil Fuel Marketer (or On-site Burner) Who First Claims the Oil Meets the Specification

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001)
2. Corrosive (D002)
3. Reactive (D003)
4. Toxicity Characteristic (D000)

(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

☒ ☒ ☒ ☒ D 0 0 4 D 0 0 5 D 0 0 6 D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See instructions if you need to list more than 12 waste codes.)

1	2	3	4	5	6
F 0 0 1	F 0 0 2	F 0 0 3	F 0 0 4	F 0 0 5	P 0 0 3
7	8	9	10	11	12
P 0 0 5	P 0 1 1	P 0 1 2	P 0 2 4	P 0 2 8	P 0 3 0

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number. See instructions.)

1	2	3	4	5	6
X 8 5 0	X 9 0 0	X 9 1 0	X 9 4 0	6 6 6 6	7 7 7 7

X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Name and Official Title (type or print)

Date Signed

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

ID - For Official Use Only

DX. Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13	14	15	16	17	18
D 0 0 8	D 0 0 9	D 0 1 0	D 0 1 1	D 0 2 2	D 0 3 6
19	20	21	22	23	24
D 0 3 9	P 0 6 9	P 1 0 4	P 1 0 6	P 1 0 8	P 1 1 3
25	26	27	28	29	30
P 1 1 9	P 1 2 0	U 0 0 1	U 0 0 6	U 0 0 7	U 0 0 8
31	32	33	34	35	36
U 0 0 9	U 0 1 2	U 0 4 1	U 0 5 2	U 0 6 8	U 0 8 0
37	38	39	40	41	42
U 1 0 1	U 1 0 2	U 1 0 3	U 1 0 8	U 1 1 2	U 1 1 3
43	44	45	46	47	48
U 1 1 7	U 1 2 1	U 1 2 2	U 1 2 3	U 1 3 4	U 1 4 4
49	50	51	52	53	54
U 1 4 7	U 1 5 1	U 1 5 2	U 1 5 6	U 1 6 0	U 1 6 2
55	56	57	58	59	60
U 1 6 5	U 1 6 9	U 1 8 8	U 1 9 0	U 2 0 9	U 2 1 3
61	62	63	64	65	66
U 2 1 4	U 2 1 6	U 2 1 7	U 2 2 1	U 2 2 3	U 2 2 8
67	68	69	70	71	72
U 2 3 8	P 0 9 8	U 1 3 3	P 0 7 7	U 1 0 6	U 2 4 6
73	74	75	76	77	78
P 0 4 8	P 0 8 7	P 1 0 5			
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102
103	104	105	106	107	108
109	110	111	112	113	114
115	116	117	118	119	120

ARCO Chemical Company
3801 West Chester Pike
Newtown Square, Pennsylvania 19073-2387
Telephone (610) 359 2000



July 12, 1995

Pennsylvania Department of Environmental Resources
Bureau of Solid Waste Management
Division of Hazardous Waste
Harrisburg, PA 17120

re: Modification of Notification of Regulated Waste Activity
ARCO Chemical Company
3801 West Chester Pike
Newtown Square, PA 19073
EPA ID No. PAD 046538211

JUL 17 1995

Dear Sirs:

Attached is an updated Notification of Regulated Waste Activity (EPA 8700-12) for the hazardous waste activities at the Newtown Square facility of ARCO Chemical Company. The waste codes typically generated by the facility are listed.

ACC is a Research & Development facility and no commercial manufacturing operations are located at this site. Pilot plants and research laboratory operations are the source of the chemical wastes.

Should you have any questions about the information submitted in this report please contact me at (610) 359-2392.

Sincerely,

James G. Victor
Manager, Materials Management

JGV
Enclosures

copy: T.A. Bailey/NSC
A.H. Goldsmith/D2
M.G. Griffith/EOB
T.J. Senn/D1
C.W. Ruoff/D1

RECEIVED
EPA REGION III
JUL 21 1995

Please refer to the instructions for Filing Notification before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).



EPA

Notification of Regulated Waste Activity

United States Environmental Protection Agency

Date Received
(For Official Use Only)

JUL 17 1995

I. Installation's EPA ID Number (Mark 'X' in the appropriate box)

☐

A. First Notification

☒

B. Subsequent Notification
(complete item C)

C. Installation's EPA ID Number

P A D 0 4 6 5 3 8 2 1 1

II. Name of Installation (Include company and specific site name)

A R C O C H E M I C A L C O M P A N Y R & D

III. Location of Installation (Physical address not P.O. Box or Route Number)

Street

3 8 0 1 W E S T C H E S T E R P I K E

Street (continued)

City or Town

N E W T O W N S Q U A R E

State

ZIP Code

P A 1 9 0 7 3 -

County Code County Name

D E L A W A R E

IV. Installation Mailing Address (See instructions)

Street or P.O. Box

S A M E

City or Town

State

ZIP Code

V. Installation Contact (Person to be contacted regarding waste activities at site)

Name (last)

V I C T O R

(first)

J A M E S

Job Title

M G R M A T E R I A L S

Phone Number (area code and number)

6 1 0 - 3 5 9 - 2 3 9 2

VI. Installation Contact Address (See instructions)

A. Contact Address

Location Mailing

☒ ☒

B. Street or P.O. Box

City or Town

State

ZIP Code

VII. Ownership (See instructions)

A. Name of Installation's Legal Owner

A R C O

Street, P.O. Box, or Route Number

1 0 5 5 S F L O W E R S T R E E T

City or Town

L O S A N G E L E S

State

ZIP Code

C A 9 0 0 7 1

Phone Number (area code and number)

2 1 3 - 4 8 6 - 3 5 1 1

B. Land Type

☒

C. Owner Type

☒

D. Change of Owner Indicator

Yes ☐ No ☒

(Date Changed)

Month Day Year

ID - For Official Use Only

VIII. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to instructions.)

A. Hazardous Waste Activity

1. Generator (See instructions) ☒ 3. Treater, Storer, Disposer (at installation) Note: A permit is required for this activity; see instructions.
- ☒ a. Greater than 1000kg/mo (2,200 lbs.)
☐ b. 100 to 1000 kg/mo (220 - 2,200 lbs.)
☐ c. Less than 100 kg/mo (220 lbs.)
2. Transporter (Indicate Mode in boxes 1-5 below)
☐ a. For own waste only
☐ b. For commercial purposes
- Mode of Transportation
☐ 1. Air
☐ 2. Rail
☐ 3. Highway
☐ 4. Water
☐ 5. Other - specify
4. Hazardous Waste Fuel
☐ a. Generator Marketing to Burner
☐ b. Other Marketer
☐ c. Boiler and/or Industrial Furnace
1. Smelter/Refinery
2. Small Quantity Exemption
- Indicate Type of Combustion Device(s)
☐ 1. Utility Boiler
☐ 2. Industrial Boiler
☐ 3. Industrial Furnace
- ☐ 5. Underground Injection Control

B. Used Oil Fuel Activities

1. Off-Specification Used Oil Fuel
☐ a. Generator Marketing to Burner
☐ b. Other Marketer
☐ c. Burner - indicate device(s) - Type of Combustion Device
1. Utility Boiler
2. Industrial Boiler
3. Industrial Furnace
- ☐ 2. Specification Used Oil Fuel Marketer (or On-site Burner) Who First Claims the Oil Meets the Specification

IX. Description of Regulated Wastes (Use additional sheets if necessary)

A. Characteristics of Nonlisted Hazardous Wastes. Mark 'X' in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. (See 40 CFR Parts 261.20 - 261.24)

1. Ignitable (D001) ☒ 2. Corrosive (D002) ☒ 3. Reactive (D003) ☒ 4. Toxicity Characteristic (D000) ☒

(List specific EPA hazardous waste number(s) for the Toxicity characteristic contaminant(s))

D 0 0 4 D 0 0 5 D 0 0 6 D 0 0 7

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33. See instructions if you need to list more than 12 waste codes.)

1 F 0 0 1	2 F 0 0 2	3 F 0 0 3	4 F 0 0 4	5 F 0 0 5	6 P 0 0 3
7 P 0 0 5	8 P 0 1 1	9 P 0 1 2	10 P 0 2 4	11 P 0 2 8	12 P 0 3 0

C. Other Wastes. (State or other wastes requiring a handler to have an I.D. number. See instructions.)

1 X 8 5 0	2 X 9 0 0	3 X 9 1 0	4 X 9 4 0	5 6 6 6 6	6 7 7 7 7
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X. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

Name and Official Title (type or print)

Date Signed

XI. Comments

Note: Mail completed form to the appropriate EPA Regional or State Office. (See Section III of the booklet for addresses.)

ID - For Official Use Only

IX. Description of Regulated Wastes (Additional Sheet)

B. Listed Hazardous Wastes. (See 40 CFR 261.31 - 33; Use this page only if you need to list more than 12 waste codes.)

13	14	15	16	17	18
D 0 0 8	D 0 0 9	D 0 1 0	D 0 1 1	D 0 2 2	D 0 3 6
19	20	21	22	23	24
D 0 3 9	P 0 6 9	P 1 0 4	P 1 0 6	P 1 0 8	P 1 1 3
25	26	27	28	29	30
P 1 1 9	P 1 2 0	U 0 0 1	U 0 0 6	U 0 0 7	U 0 0 8
31	32	33	34	35	36
U 0 0 9	U 0 1 2	U 0 4 1	U 0 5 2	U 0 6 8	U 0 8 0
37	38	39	40	41	42
U 1 0 1	U 1 0 2	U 1 0 3	U 1 0 8	U 1 1 2	U 1 1 3
43	44	45	46	47	48
U 1 1 7	U 1 2 1	U 1 2 2	U 1 2 3	U 1 3 4	U 1 4 4
49	50	51	52	53	54
U 1 4 7	U 1 5 1	U 1 5 2	U 1 5 6	U 1 6 0	U 1 6 2
55	56	57	58	59	60
U 1 6 5	U 1 6 9	U 1 8 8	U 1 9 0	U 2 0 9	U 2 1 3
61	62	63	64	65	66
U 2 1 4	U 2 1 6	U 2 1 7	U 2 2 1	U 2 2 3	U 2 2 8
67	68	69	70	71	72
U 2 3 8	P 0 9 8	U 1 3 3	P 0 7 7	U 1 0 6	U 2 4 6
73	74	75	76	77	78
P 0 4 8	P 0 8 7	P 1 0 5			
79	80	81	82	83	84
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97	98	99	100	101	102
103	104	105	106	107	108
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115	116	117	118	119	120